

**DRAFT 4/97**  
**LIST OF TABLES**

Table 1.	Functional requirements of the FEHM application . . . . .	29
Table 2.	Input control file . . . . .	31
Table 3.	Main input data file . . . . .	32
Table 4.	Geometry data file . . . . .	43
Table 5.	Zone data file . . . . .	44
Table 6.	Prompted input . . . . .	45
Table 7.	Restart output file . . . . .	47
Table 8.	Simulation history output file . . . . .	47
Table 9.	Solute history output file . . . . .	48
Table 10.	Contour plot output file . . . . .	48
Table 11.	Coefficient storage file . . . . .	50
Table 12.	Error output file . . . . .	50
Table 13.	AVS log output file . . . . .	51
Table 14.	AVS ASCII header output files . . . . .	51
Table 15.	AVS binary header output files . . . . .	52
Table 16.	AVS ASCII geometry output file . . . . .	52
Table 17.	AVS binary geometry output file . . . . .	52
Table 18.	AVS ASCII data output files . . . . .	53
Table 19.	AVS binary data output files . . . . .	53
Table 20.	Error conditions that result in program termination . . . . .	59
Table 21.	Warning conditions and messages . . . . .	61
Table 22.	Input parameters for the 2-D and 3-D heat-conduction problems . . . . .	72
Table 23.	Input parameters for the temperature-in-a-wellbore problem . . . . .	78
Table 24.	Input parameters for the transient pressure problem . . . . .	80
Table 25.	Input parameters for the one-dimensional infiltration problem . . . . .	83
Table 26.	Input parameters for the vapor-extraction problem . . . . .	88
Table 27.	Input parameters for the dual-porosity problem . . . . .	92

**DRAFT 4/97**

Table 28.	Input parameters for the Avdonin problem . . . . .	97
Table 29.	Input parameters for the Toronyi two-phase problem . . . . .	99
Table 30.	Input parameters for the DOE Code Comparison Project, Problem 5, Case A . . . . .	103
Table 31.	Input parameters for the dry-out simulations. . . . .	105
Table 32.	Input parameters for the 1-D reactive-tracer transport problem. . . . .	108
Table 33.	Adsorption parameters for the reactive-tracer transport problem. . . . .	108
Table 34.	Combinations of phenomena exercised in the tests of Henry's Law species . . . . .	110
Table 35.	Input parameters for the tests of Henry's Law species. . . . .	112
Table 36.	Adsorption, Henry's Law, and reaction parameters for the tests of Henry's Law species . . . . .	113
Table 37.	Adsorption parameters for the fracture transport problem . . . . .	117
Table 38.	Input parameters for the test of the matrix-diffusion problem . . . . .	118
Table 39.	Input parameters for the calcite-dissolution problem. . . . .	123
Table 40.	Input parameters for test of the reactive transport problem . . . . .	126
Table 41.	Input parameters and conditions for test of the radionuclide transport problem. . . . .	128
Table 42.	Results of tests of thermodynamic functions. . . . .	133
Table 43.	Results of the test of 2-D heat conduction . . . . .	139
Table 44.	Results of the test of 3-D heat conduction . . . . .	142
Table 45.	Results of the temperature in a wellbore test . . . . .	143
Table 46.	Results of the test of the pressure transient analysis. . . . .	145
Table 47.	Results of the test of infiltration into a one-dimensional, layered, unsaturated medium . . . . .	147
Table 48.	Results of the test of vapor extraction from an unsaturated reservoir . . . . .	151
Table 49.	Results of the dual-porosity test. . . . .	152
Table 50.	Results of the test of heat and mass transfer in porous media . . . . .	154
Table 51.	Results of the test of the Toronyi two-phase problem. . . . .	156
Table 52.	Results of the test of the DOE Code Comparison Project Problem . . . . .	157
Table 53.	Results of the test of dry-out of a partially saturated medium . . . . .	159
Table 54.	Results of the test of reactive-tracer transport . . . . .	161

**DRAFT 4/97**

Table 55. Results of the test of Henry's Law species..... 164

Table 56. Results of the fracture-transport/matrix-diffusion test ..... 167

Table 57. Results of a test of the movement of a dissolved mineral front ..... 168

Table 58. Results of the test of multisolute reactive transport..... 169

Table 59. Results of the test of the three-dimensional decay-chain problem..... 171

Appendix A

Table 1. Subroutine and Function Calls within FEHMN..... 176

Appendix B

Table 1. Functional requirements of the FEHM application ..... 196

Table 2. FEHM macro control statements used by test problems ..... 198